

## ABSTRACT

A low-pitched sound which cannot be reproduced by a speaker is cut off. An operational amplifier A1, a capacitor C2 and a capacitor C3 output a signal in which a signal with band-pass characteristics is inverted. A switch S3 operates as a resistor and inverts a signal outputted from the operational amplifier A1. An operational amplifier A2 and a capacitor C6 output a signal with low-pass characteristics. Furthermore, the signal with low-pass characteristics is fed back to the operational amplifier A1 via a switch S4 and a capacitor C4. An operational amplifier A3, resistors R1 to R4 and a capacitor C7 attenuate a signal component with low-pass characteristics and a signal component with band-pass characteristics from an input signal and extract a signal with high-pass characteristics in the input signal.